

## REMARKS/ARGUMENTS

Claims 17, 19, and 20 are under active consideration in the subject patent application. Applicant submits that, in view of the following Remarks/Arguments, the case is in condition for allowance.

Applicant appealed the Examiner's Final Office Action of March 21, 2006 and Advisory Action of June 2, 2006 rejecting claims 17, 19, and 20 by filing a Notice of Appeal on July 20, 2006. On September 20, 2006, Applicant filed a Petition for Extension of Time requesting a 1-month extension to file an appeal brief, and on October 11, 2006, Applicant filed the Appeal Brief. Since the filing of Applicant's Appeal Brief, the Examiner issued an Office Action on December 1, 2006, in which the Examiner withdrew the finality of the rejection of the March 21, 2006 Office Action and reopened prosecution on the merits.

In the December 1, 2006 Official Action, Examiner has:

- (1) rejected claims 17, 19, and 20 under 35 U.S.C. § 112, first paragraph;
- (2) rejected claims 17, 19, and 20 under 35 U.S.C. § 102(f) because Applicant allegedly did not invent the claimed subject matter;
- (3) rejected claims 17 and 20 under 35 U.S.C. § 103(a) in view of the proposed combination of U.S. Patent No. 5,983,198, issued to Mowery et al. ("Mowery"), and U.S. Patent No. 4,615,351, issued to Schliefer et al. ("Schliefer"); and
- (4) rejected claim 19 under 35 U.S.C. § 103(a) in view of the proposed combination of Mowery, Schliefer, and U.S. Statutory Invention Registration No. H1743, issued to Graves et al. ("Graves").

With regard to Item 1, the Examiner alleges that the limitations of “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver” are not adequately supported by the specification. Applicant has previously cited portions of the specification that support these limitations in responding to the Examiner’s subsequently withdrawn contention that the present application could not claim priority to the parent application. (Response to Final Office Action at 10-14 (May 19, 2006); Advisory Action at 2 (June 2, 2006) (“That is, since priority may now be granted to U.S. Patent No. 6,366,829, having an effective filing date of 10/6/1998, Mowery et al. is no longer viewed to be a 102(b) type of reference . . .”).)

Applicant maintains that there is sufficient disclosure in the specification to support the recitation of “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver” in the subject claims. For example, one of the very first lines of the specification states: “The invention relates to the field of automated inventory management, and in particular concerns a system for remote monitoring of material storage levels for dry bulk goods, wherein an independent entity, such as a transportation carrier, can continuously monitor raw material supply levels at a remote manufacturing plant, and, based on projected usage rates, place timely orders on behalf of the plant, with preselected vendors, to replenish depleted raw materials.” (Specification ¶ [0002] (emphases added).) An “automated inventory management” system would logically and inherently include “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver,”

and the fact that the orders are “timely” placed “on behalf of the plant” with “preselected vendors” is a clear disclosure of a fully automated system comprising such features.

The Examiner cites paragraph [0003], stating that the specification discloses “a phone call is placed from the plant site to an outside vendor to order another shipment of raw materials” (Specification ¶ [0003]) and that “nowhere does the specification disclose that the phone call takes place automatically” (Office Action of Dec. 1, 2006 at 3). However, the paragraph cited by the Examiner effectively describes the prior art, not Applicant’s invention, and, in fact, this paragraph actually supports Applicant’s argument. The cited paragraph – the first paragraph of the **Background of the Invention** section – more completely provides:

Manufacturers frequently employ independent transportation carriers to deliver raw materials from vendor cites [sic] to manufacturing sites on an as-needed basis. **Traditionally, manufacturers themselves monitor on-site inventory levels and product usage rates**, and, when material supplies become low, a phone call is placed from the plant site to an outside vendor to order another shipment of raw materials.

(Specification ¶ [0003] (emphasis added).) The import of this paragraph is to describe the state of the prior art and the need for Applicant’s fully automated system, i.e., traditionally manufacturers themselves (as opposed to automated systems) had to monitor inventory levels and place phone calls to direct a transport vehicle to deliver materials. The explanation of a “traditional” method whereby “manufacturers themselves” monitored inventory levels and placed phone calls to order materials and direct transport vehicles to deliver the materials is a clear description of the prior art in contrast to Applicant’s fully automated system.

The specification also states that “[i]n one aspect of the invention a remote material monitoring system is provided which can be used to monitor inventory quantities for raw materials at a remote site and automatically transmit signals corresponding to existing material levels from the remote site to a central computer at predetermined time intervals.” (Specification ¶ [00012] (emphasis added).) This statement provides a clear basis for claiming the automatic transmission of signals “corresponding to existing material levels,” which, contrary to the Examiner’s suggestion, logically includes signals automatically sent to order more materials to replenish “existing material levels” and to direct transport vehicles to deliver materials to replenish “existing material levels.”

The Examiner admits that the specification discloses at least an “automated data collection system,” i.e., “the automated sending of a signal concerning the amount of material in a bin,” but contends that there is no support for the automated sending of a command to order or direct transportation or delivery. (Office Action at 3 (Dec. 1, 2006).) In making this contention, however, the Examiner fails to consider the entire disclosure. As noted above, the specification states that “[t]he invention relates to the field of automated inventory management,” not automated inventory monitoring, as the Examiner suggests. (Specification ¶ [0002] (emphasis added).) The specification consistently describes the invention holistically to comprise the fully automated inventory management elements of monitoring material levels, projecting future material requirements, ordering material quantities from preselected vendors, and directing a transport vehicle to deliver the ordered materials.

For example, the specification explains the need for such an automated inventory management system to have “the ability to monitor existing material levels,” “to project future material requirements,” and “to quickly convey this information to a transport carrier.” (Specification ¶ [0006].) Features of the invention are described as including a method “for continuously monitoring material levels in a storage vessel at a remote site without human intervention” and “for a transportation carrier to maintain sufficient raw material quantities at a remote manufacturing plant site.” (Specification ¶¶ [00016] – [00017].) The disclosed “automated inventory management” (Specification ¶ [0002]) system and method are described as “a system for a transportation carrier to maintain a sufficient quantity of raw material at a remote site” (Specification ¶ [00023]) and “a method for a transportation carrier to maintain sufficient quantities of raw materials at a remote manufacturing site,” wherein “[t]he existing raw material quantity and a projected material usage rate” are determined, “additional raw materials are ordered from a preselected vendor,” and “[a] transport vehicle is provided to deliver the additional raw material from the preselected vendor to the manufacturing site by transporting the additional raw material from the preselected vendor to the manufacturing site” (Specification ¶ [00024] (emphasis added)). The specification provides that “[t]he invention concerns a Bulk Inventory Network System (BINS) used to monitor customer inventories and order delivery of dry bulk materials.” (Specification ¶ [00031] (emphasis added).) By using the disclosed automated inventory management system “a transportation carrier can maintain sufficient quantities of raw materials at a remote manufacturing site” while “reliev[ing] itself from the day-to-day responsibility of

monitoring, recording and maintaining sufficient raw material stores.” (Specification ¶ [00039].) The material levels data, material usage rates data, material usage rate changes data, and the projected material usage rates data that the Examiner admits are all automatically, continually collected and determined are, within the automated system, “used to plan and schedule shipment of additional material to the plant in order to replenish depleted stores.” (Specification ¶ [00040].)

Each of the above-cited portions of the specification describes the ordering of materials and directing of transport vehicles as integral parts of the automated system, and none is inconsistent with the definition of “automation” cited by the Examiner. (See Office Action at 3 (Dec. 1, 2006).) In view of the entire specification, there is simply no basis for the Examiner to draw an arbitrary line within the disclosed system and method and assert that certain features of the invention are automated while certain features are not. Accordingly, there is ample disclosure in the specification to support recitation of “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver” in the subject claims. Applicant therefore requests that the Examiner withdraw the rejection of the claims on this basis.

With regard to Item 2, the Examiner takes the position that Applicant has admitted in the Affidavit dated August 8, 2005 that Applicant is not the sole inventor. (Office Action at 4 (Dec. 1, 2006).) To support this position, the Examiner points to Applicant’s statements that he consulted with other companies and individuals to memorialize his conception of the invention and to reduce his invention to practice, and, particularly, Applicant’s statement that Apptech Engineered Systems provided a

Remote Telemetry Unit for use in an embodiment of the invention. The Examiner misinterprets Applicant's statements in the Affidavit – the Affidavit clearly indicates that Applicant had entirely conceived of his invention by himself and sought the assistance of consultants only to reduce his conception to practice. (See, e.g., Affidavit of David B. Wallace ¶¶ 2-4, 7-10 (Aug. 8, 2005).) Under applicable standards relating to inventorship, Applicant is the sole inventor.

“The threshold question in determining inventorship is who conceived the invention. Unless a person contributes to the conception of the invention, he is not an inventor. ... Insofar as defining an inventor is concerned, reduction to practice, per se, is irrelevant.” In re Hardee, 223 USPQ 1122, 1123 (Comm'r Pat. 1984) (citing Fiers v. Revel, 984 F.2d 1164, 1168, 25 USPQ2d 1601, 1604-05 (Fed. Cir. 1993)); MPEP § 2137.01. Throughout the Affidavit, Applicant states that he alone conceived of the invention and that he sought the advice and assistance of others only to reduce his invention to practice. Specifically, Applicant states that he invented the claimed system and “[sought] the advice and assistance of companies and individuals that specialize in the design and manufacture of inventory level systems in order to both memorialize my conception of the invention and to reduce it to practice.” (Affidavit of David B. Wallace ¶ 8 (Aug. 8, 2005) (emphasis added).) Applicant also states that he contacted consultants “[a]s part of my on-going, diligent efforts to reduce my invention to practice . . . to discuss my conception of a system and method.” (Id. ¶ 9.) Although Applicant obtained assistance in reducing his invention to practice, he alone conceived of it, and conception is all that is required for inventorship.

Applicant, at all times, maintained intellectual domination over his invention while reducing it to practice with the help of consultants. Morse v. Porter, 155 USPQ 280, 283 (Bd. Pat. Inter. 1965) (“In arriving at ... conception [the inventor] may consider and adopt ideas and materials derived from many sources ... [such as] a suggestion from an employee, or hired consultant ... so long as he maintains intellectual domination of the work of making the invention down to the successful testing, selecting or rejecting as he goes ... even if such suggestion [or material] proves to be the key that unlocks his problem.”). For instance, the Affidavit details how Applicant hired certain consultants, e.g., Apptech Engineered Systems, Bin-Master, Tri-Star, Inc., Magyar Associates, Steve Lowery Associates, and sought their advice and suggestions regarding how to reduce his conception to practice, but that each consultant was carrying out Applicant’s plan and advising Applicant based on his requirements. (See, e.g., Affidavit ¶ 11 (stating that Apptech consultant advised “that it would be possible to design such a system according to my requirements”) (emphasis added); ¶ 19 (stating that Apptech consultant “presented a potential embodiment of my invention incorporating a ‘black box’ to operate as a remote telemetry unit”) (emphasis added); ¶ 23 (stating that Tri-Star consultant “was instructed by me on behalf of J.P. Donmoyer to provide a formal proposal and quote for the project”) (emphasis added); ¶ 30 (“The PST Project would be under my direct control so that I could monitor and direct the efforts toward perfecting the invention’s essential qualities.”); see also Affidavit Exhibits F, H, I, K & L (acknowledging involvement of each of several consultants in working to implement Applicant’s invention at Applicant’s direction).



Although an inventor need not actually be the one to reduce an invention to practice, Applicant was in fact integrally involved in reducing his invention to practice with the aid of consultants. In re DeBaun, 687 F.2d 459, 463, 214 USPQ 933, 936 (CCPA 1982) (“[T]here is no requirement that the inventor be the one to reduce the invention to practice so long as the reduction to practice was done on his behalf.”); Tucker v. Naito, 188 USPQ 260, 263 (Bd. Pat. Inter. 1975) (stating that inventors need not “personally construct and test their invention”); see also De Solms v. Schoenwald, 15 USPQ2d 1507, 1510 (Bd. Pat. App. & Inter. 1990) (stating that reduction to practice may be done by another on behalf of the inventor). The Affidavit details the steps Applicant took in directing and working with the consultants, from his “verbal disclosure of an embodiment of my invention” (id. ¶ 10), to building and testing several embodiments of the invention, until fully implementing his invention at facilities that “fully functioned according to my expectations and in conformance with the anticipated results of implementing my invention as conceived prior to April 22, 1996” (id. ¶¶ 59, 60). (Accord Affidavit Exhibits H, I & J (acknowledging that “Dave [Applicant] and his team” worked diligently to reduce Applicant’s invention to practice).) At each step, the consultants were akin to skilled mechanics carrying out the details of Applicant’s plan. Such activity on the part of the consultants does not constitute inventorship. Davis v. Carrier, 81 F.2d 250, 252, 28 USPQ 227, 229 (CCPA 1936) (concluding that a skilled mechanic carrying out the details of a plan devised by another is not considered an inventor).

The Examiner alleges that the “heart of the invention is the Remote Telemetry Unit [RTU] or ‘Black Box,’” and that because an RTU was provided by Apptech Engineered Systems, Applicant was not the sole inventor. (Office Action at 5 (Dec. 1, 2006).) This is a mischaracterization of Applicant’s invention and declaration. First of all, Applicant disagrees that the RTU is the “heart of the invention.” Applicant’s invention comprises a system and a method that include the RTU as an element among and in combination with other elements. Further, and notwithstanding this point, Applicant clearly states in the Affidavit that at the origination of his contact with each consultant, including Apptech Engineered Systems, Applicant provided “a verbal disclosure of an embodiment of my invention including at least . . . a remote telemetry unit . . . .” (Affidavit at ¶ 10.) Clearly, Applicant had conceived of the use of the RTU in his invention before any consultant was involved. Indeed, contrary to the Examiner’s interpretation, that a “special technician” had to be assigned at Apptech Engineered Systems to assemble an RTU for Applicant (id. ¶ 13) supports Applicant’s declaration that he conceived of the need for and requirements of an RTU, but that a “skilled mechanic” was necessary to carry out the details of Applicant’s plan, see Davis, 81 F.2d at 252.

Although there was a certain amount of testing and trial-and-error in reducing Applicant’s conception to practice, including in the construction of the RTU, this limited amount of post-conception “experimentation” was not extensive nor did it involve inventive skill. Burrough Wellcome Co. v. Barr Labs., Inc., 40 F.3d 1223, 1228, 32 USPQ2d 1915, 1919 (Fed. Cir. 1994) (noting that an inventor does not need to know

that the invention will work for there to be complete conception); Hiatt v. Ziegler, 179 USPQ 757, 763 (Bd. Pat. Inter. 1973) (“[C]onception is established when the invention is made sufficiently clear to enable one skilled in the art to reduce it to practice without the exercise of extensive experimentation or the exercise of inventive skill.”). Such limited testing does not affect Applicant’s status as the sole inventor. Scott v. Finney, 34 F.3d 1058, 1062, 32 USPQ2d 1115, 1118-19 (Fed. Cir. 1994) (stating that for reduction to practice, the invention must have been sufficiently tested to demonstrate that it will work for its intended purpose, but it need not be in a commercially satisfactory stage of development); Gellert v. Wanberg, 495 F.2d 779, 783, 181 USPQ 648, 652 (CCPA 1974) (“The nature of testing which is required to establish a reduction to practice depends on the particular facts of each case, especially the nature of the invention.”). For example, Applicant candidly explains in the Affidavit that he encountered certain problems in implementing his invention, but that he and his team were eventually able to troubleshoot and fully resolve these problems. (See, e.g., Affidavit ¶¶ 24-60.)

Notwithstanding any of the foregoing, the consultants from Apptech Engineered Systems could not be joint inventors in any event because the RTU that they assembled failed in Applicant’s invention. This is why Applicant, perhaps inartfully, described the RTU as a “potential embodiment.” (Affidavit ¶ 19.) It was only later with the assistance of Steve Lowery of Steve Lowery Associates that Applicant was eventually able to reduce his conception to practice in embodiments that fully functioned according to his expectations and in conformance with his anticipated results. (Id. ¶¶ 48-60.) The

balance of the Affidavit describes how these consultants worked at the direction of Applicant, following Applicant's instructions and detailed plan. (Id. ¶¶ 21-60.) In sum, the Affidavit supports Applicant's status as the sole inventor of the claimed subject matter. Reconsideration and withdrawal of the rejection of the claims on this basis are respectfully requested.

Regarding Items 3 and 4, the obviousness rejections, the Examiner has not presented any new arguments since Applicant's appeal of the Final Office Action of March 21, 2006 and the Advisory Action of June 2, 2006. In response, Applicant hereby incorporates by reference the arguments presented in Section VII of the Appeal Brief filed on October 11, 2006 as if fully restated herein.

In sum, the Examiner continues to misunderstand Applicant's previous arguments and misconstrue Applicant's Affidavit. As explained in Applicant's previous remarks, the Affidavit clearly establishes that Mowery is not a valid prior art reference and, therefore, any rejection of claims 17, 19, or 20 based on Mowery or any combination of prior art references including Mowery is not valid and must fail because Applicant had possession of the entire invention as claimed – including automatically ordering materials and automatically directing a transport vehicle to deliver the materials – prior to the effective filing date of the Mowery reference, i.e., April 23, 1996.

For the reasons stated in the Appeal Brief in combination with the foregoing, Applicant maintains (1) that the specification supports the claimed limitations of “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver,” (2) that Applicant alone invented the entire claimed subject

matter, (3) that the instant application properly claims the benefit of the parent application, including with respect to the limitations of “automatically ordering additional dry bulk materials” and “automatically directing a transport vehicle to deliver,” and (4) that Mowery is not a valid prior art reference on which to base a rejection under 35 U.S.C. § 103(a), alone or in combination with Schliefer and/or Graves.

In view of the foregoing, Applicant respectfully asserts that the claims are in proper condition for allowance.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicant’s undersigned Attorney invites the Examiner to telephone him at **215-979-1255**.

Respectfully Submitted,

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